DIRECTIONS FOR TEST NO. 14-31-32

SUBJECT: Distillation Range of Liquid Aroclors

METHOD: A.S.T.M. D20-30 With Modifications.

The apparatus, consisting of flask, condenser tube, shield, and thermometer, is exactly the same as described under A.S.T.M. test D20-30 "Distillation of Bituminous Materials suitable for Road Treatment". The method is changed to the extent that thermometer readings are taken when specified percentages (usually 10, 50, 90%) of Aroclor have been distilled instead of following the A.S.T.M. procedure of weighing the distillate between specified thermometer readings. In testing Aroclors 1254, 1248, 1242, etc., 100 cc of sample are taken for test and the distillate is received in a 100 cc graduated cylinder. In testing Aroclor 1260, 100 gms. of sample is weighed into the distilling flask and distillate received in a tared flask or beaker resting on pan of a torsion balance with 100 gram scale.

Procedure

Transfer 100 cc of sample (weigh 100 grams in the case of Aroclor 1260) into the distilling flask. Assemble apparatus as described under A.S.T.M. D20-30. Insert thermometer (A.S.T.M. high distilling 0-400°C) thru cork in the neck of the flask so that the top of the bulb is level with the lowest point of juncture of the tubulature and neck of the flask. Apply heat to the flask supported on two sheets of 20 mesh wire gauze so that the first drop comes over in from 5 to 15 minutes.

Conduct distillation at rate of 50 to 70 drops per minutes. Collect distillate in 100 cc graduated cylinder (or tared flask in case of Aroclor 1260). When 10% has been collected as distillate, note and record the thermometer reading. Repeat when 50 and 90% has been collected. For record purposes the temperature when first drop falls and when each succesive 10% has been collected (up to 90%) should usually be recorded even where specifications require only the 10, 50, and 90% readings.

No corrections for emergent stem or pressure are applied to the thermometer readings.

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